

## **Political Violence and Foreign Direct Investment**

**Quan Li**

Associate Professor  
Department of Political Science  
The Pennsylvania State University  
University Park, PA 16802  
Phone: (814)865-6575  
Fax: (814)863-8979  
Email: [quanli@psu.edu](mailto:quanli@psu.edu)

Keywords: FDI Inflows, Political Violence, Civil War, Interstate War, Transnational Terrorism

Acknowledgement: Book chapter prepared for “Regional Economic Integration” edited by Alan Rugman and Michele Fratianni. I thank Alan Rugman, Michele Fratianni, and participants at the 2005 Conference on Regional Integration and Security, Kelley School of Business, Indiana University for helpful comments and suggestions.

## **Political Violence and Foreign Direct Investment**

### *Abstract*

The international business literature presents an interesting intellectual puzzle regarding the effect of political instability and political risk on foreign direct investment (FDI). Survey evidence shows that multinational executives take into account political instability in making investment decisions, while econometric studies produce conflicting findings. In this paper, I offer a new theory that explains how political violence, an extreme form of political instability, affects foreign direct investment. The new theory differs from previous arguments on three points. First, the theory considers how rational expectations and uncertainty on the part of foreign investors affect the ways in which political violence influences investment behaviors. Second, the new theoretical argument argues for the need to investigate separately the effects of different types of political violence (civil war, interstate war, and transnational terrorism). Third, I consider FDI inflows as resulting from two distinct but related decisions, including the investment location choice and the decision on investment amount, and sort out statistically the separate effects of political violence on these two processes. The empirical analysis of FDI inflows covers about 129 countries from 1976 to 1996. The statistical findings largely support my theoretical expectations. My theory helps reconcile the inconsistent econometric findings on the effect of political instability on FDI flows.

The international business literature presents an interesting intellectual puzzle regarding the effect of political instability and political risk on foreign direct investment (FDI). In an early review of studies on political risk, Kobrin (1979) concludes that the empirical evidence is inconsistent and mixed regarding the effect of political instability on FDI stocks or flows. Later econometric studies continue to produce mixed findings. For example, Schneider and Frey (1985) find that political instability has a negative effect on FDI flows. Nigh (1985) finds in an analysis of 24 countries over 21 years that both inter-nation and intra-nation conflict and cooperation affect manufacturing FDI flows by US firms. But Fatehi-Sedeh and Safizadeh (1989) fails to find statistical association between political stability and FDI. In a cross sectional analysis of FDI flows to 36 countries for 1977 and 1982, Loree and Guisinger (1995) find that political stability significantly promotes FDI inflows in 1982, but not in 1977. Olibe and Crumbley (1997) do not find consistent evidence that political risk index influences US FDI flows to 10 out of 13 OPEC countries. Using data for all reported manufacturing plant openings from 1984 to 1987, Woodward and Rolfe (1993) find that political stability increases the probability a country is selected as an investment location. More recently, in a pooled analysis of 52 developing countries from 1982-1995, Li and Resnick (2003) do not find that political instability has any statistically significant effect on FDI inflows, but regime durability encourages FDI inflows. Sethi, Guisinger, Phelan and Berg (2003) find that political instability, measured by a composite variable on a 100-point scale, does not influence US FDI flows to 28 countries from 1981 to 2000. Globerman and Shapiro (2003) conduct a two stage analysis of US FDI flows to 143 countries from 1994 to 1997, in which the first stage investigates the causal factors of the probability that a country is an FDI recipient while the second stage examines the determinants of the amount of FDI received. They find that an index of political instability and violence, including armed conflict, social unrest, terrorist threats, etc, does not influence the probability whether a country receives any FDI inflow, but reduces the amount of FDI inflow a

country receives. That is, the average size of an FDI transaction may change independently of the probability of a country receiving the FDI. The econometric evidence is obviously mixed and inconsistent across studies.

In contrast, evidence from studies of responses of executives to interviews and questionnaires (e.g., Bass et al. 1977; Aharoni 1966) typically demonstrates that political risk and stability are important considerations when investors make investment decisions. More recently, Porcano (1993) finds in a survey of Canadian, British, and Japanese firms of 36 industries that political climate in the host country is consistently ranked above 3 on a 5-point importance scale. The inconsistency of empirical evidence among econometric studies of FDI flows and the inconsistency between econometric findings and survey evidence are widely noted in various studies of the determinants of foreign direct investment (see, e.g., Pearce et al. 1992).

Resolving this intellectual puzzle has important implications. First, the issue is important for the operation and theoretical understanding of international production. Assume that the mixed econometric evidence reflects the real nature of the relationship between political instability and FDI. Firm executives are then misled in decision-making by their own beliefs of the importance of political instability. Capital is not allocated to its most productive use. On the other hand, if the individual executives are correct in their perception of the importance of political instability, the conflicting econometric findings suggest that our theoretical understanding of the relationship between political instability and international production is flawed.

Second, the issue also is important for understanding the effect of FDI on political violence. In the political science literature, national integration into international production is found to reduce dyadic military dispute (e.g., Gartzke, Li and Boehmer 2001; Gartzke and Li 2003). FDI, particularly in the manufacturing sector, also is found to decrease civil conflict in poor countries by increasing resource availability and opportunities, while FDI in the wealthier countries appear to

intensify class conflicts (Rothgeb 1990). Furthermore, FDI inflows are found not to directly affect transnational terrorist incidents, but to indirectly reduce such incidents by promoting economic development in countries (Li and Schaub 2004). A main underlying premise of these studies is that political violence affects foreign investment flows, which generates behavioral implications for a variety of political actors involved. To the extent that political violence does not have a logically consistent effect on FDI, one may need to re-examine the effects of FDI on political violence.

In this paper, I offer a new theoretical argument to explain how political violence, an extreme form of political instability, affects foreign direct investment. The new theory differs from previous arguments on three different issues. First, the theory considers how rational expectations and uncertainty on the part of foreign investors affect the ways in which political violence influences investment behaviors. Second, the new theoretical argument presents the need to investigate separately the effects of different types of political violence. Instead of applying an aggregate political instability or risk index, like it typically has been done in the literature, I examine different forms of political violence, including civil war, interstate war, and transnational terrorism. Third, I consider FDI inflows as resulting from two distinct but related decisions, including the investment location choice and the decision on investment amount, and sort out statistically the separate effects of political violence on these two processes.

The empirical analysis of FDI inflows covers about 129 countries from 1976 to 1996. The statistical findings largely support my theoretical expectations. The new theoretical argument helps reconcile the inconsistent econometric findings on the effect of political instability on FDI flows.

### **How Does Political Violence Influence Foreign Direct Investment?**

The theory builds on the following elements. First, investors believe political instability in the host country is important for choosing investment locations and deciding the investment amount.

Second, forward-looking investors constantly anticipate the effect of political violence in the host country. Third, investors do not have perfect foresight and have to manage unanticipated political violence *ex post*. Fourth, political violence comes in different types, some of the most extreme of which include civil war, interstate war, and transnational terrorist attacks. Because different types of political violence have different characteristics, their effects on FDI inflows may differ.

### **Attributes of International Production**

A multinational enterprise (MNE) organizes production of goods and services in more than one country, involving the transfer of assets or intermediate products within the investing enterprise and without any change in ownership. In this paper, the focus of analysis--FDI inflows--refers to the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. Operationally, it is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the IMF balance of payments statistics.<sup>1</sup>

In the literature on FDI and MNE, several strands of theoretical explanations of why firms engage in international production exist. Some scholars (e.g., Hymer 1976) view FDI as the result of structural market imperfection and the firm's desire to pursue monopoly status using its firm-specific assets. Other scholars (e.g., Buckley and Casson 1976; Rugman 1981) look at FDI as a way to resolve opportunistic behaviors in market transactions, that is, exerting direct hierarchical control over foreign production, instead of servicing the market with other alternative means (such as trade). Still others (e.g., Vernon 1971) consider FDI as the firm's response to the technological maturity of

---

<sup>1</sup> Most countries fail to report data on reinvested earnings, hence resulting in a downward bias in the reported size of the flows. I thank Alan Rugman for bringing this data issue to my attention. To the extent that political violence is expected to reduce reinvestment, the lack of data on reinvestment makes it harder for us to find a statistically significant effect by violence on FDI.

its products and the growing demand in foreign market. The eclectic paradigm by Dunning (e.g., 1988, 1993) seeks to tie these explanations into one OLI framework. That is, national firms become transnational to exploit three types of advantages: (1) a firm's advantages due to ownership (O) over tangible and intangible assets, (2) the firm's internalization (I) advantages from its hierarchical control of cross-border production, and (3) the location-specific (L) advantages perceived by firms based on the characteristics of host countries, such as resource endowment or government policies. In other words, a firm carries out FDI when the location and its ownership advantages make production abroad profitable and its direct hierarchical control of the production is preferred over other alternative modes of satisfying the demand for its products (e.g., licensing or trade).

The logic of international production brings to bear two attributes of FDI that are linchpins for my argument. FDI involves cross border jurisdiction and a long time horizon. I address the role of cross border jurisdiction in my argument in this subsection and turn to the implication of a long time horizon in the next.

Because FDI is foreign in the host economy, subject to laws and regulations by the host government, inter-jurisdictional issues arise. Cross border jurisdiction implies that foreign investors operate in an unfamiliar foreign environment. They often are not as well informed and connected as domestic investors about the policy environment; they may be treated differently than domestic investors by the host government. In the unfamiliar territory, foreign investors necessarily care about the expected return to their investments and the ease to exit the host country when the security of their property is threatened. Government policies toward FDI are important for foreign investors, because as part of the L-factors, they influence the expected returns of the investment project and the barrier to exit the host economy. Particularly critical are host policies on

expropriation, exchange control, breach of contract, repatriation of profits, voluntary divestment, performance requirement, taxation, etc.<sup>2</sup>

To the extent that political violence influences these government policies, foreign investors will take political violence into account when they make decisions on the investment location and amount. Does political violence influence government policies toward foreign investors?

Politicians, who are engaged in financially expensive and politically costly military warfare, often have an incentive to impose capital controls and prevent capital flight. The need to finance expensive wars often requires higher tax rates. Civil wars often result in regime changes that are typically associated with policy changes, such as expropriation of foreign assets and breaching contracts between MNEs and former regimes. The desire to crack down transnational terrorism invariably causes governments to monitor and scrutinize more closely private financial transactions because they may be used to finance terrorist activities.

### **Ex Ante Effect of Political Violence on Investment**

The logic of international production suggests that foreign direct investors typically have a long time horizon when operating in the host country. Their investments can not be easily reversed without paying some cost. The investment itself becomes a barrier to exit for the MNE (Rivoli and Salorio 1996). A long time horizon implies that foreign direct investors have to be forward-looking, constantly anticipating *ex ante* how political violence affects the expected returns of their investments and the political barrier to exit. Forward-looking firms operate based on the expected profit rate

---

<sup>2</sup> One may argue that an MNE may not necessarily care too much about the risks for particular investment asset, since the firm can diversify away some of the risks by holding a market portfolio (Butler and Joaquin 1998, 600). For specific investment asset in a particular country, at least part of the political risks resulting from political violence-related policy changes are not diversifiable risks. This is because investors can not fully anticipate all contingencies and because the market for the securitization of political risks is not yet well developed (Finnerty 2001).

and hedge against risks. *Ex ante*, firms evaluate the probability of political violence and the likelihood such occurrences induce unfavorable policy changes. Firms incorporate these evaluations into their choices of investment location and amount.

The implication is that anticipated events of political violence can make an otherwise desirable investment location undesirable, deterring future investment flows, and render an existing investment site less attractive, reducing reinvestment, limiting expansion and potentially inducing pre-emptive divestment. These changes in investment decisions can occur before the events of political violence materialize. For such cases, the actual happening of political violence ends up having little effect upon FDI inflows *ex post*.<sup>3</sup>

### **Ex Post Effect of Political Violence on Investment**

MNEs operate in an uncertain investment environment. While certain types of uncertainty are endogenous and can be resolved by investment through experiential learning, the type of uncertainty resulting from political violence-induced policy changes tends to be exogenous to investment (Rivoli and Salorio 1996). This is consistent with the notion in the international relations literature that the occurrence of military conflict should be treated as a stochastic process, involving incomplete information and the signaling of resolve at the crisis bargaining stage (e.g., Fearon 1995). Civil wars and terrorist attacks also are events that tend to be exogenous to investors.

Furthermore, investors do not have perfect foresight, can not fully anticipate occurrences of political violence, and have to adjust to the consequences of unanticipated political violence *ex post*. Unanticipated occurrences of political violence often lead to unanticipated unfavorable government

---

<sup>3</sup> Li and Sacko (2002) offer a similar line of argument on the effect of interstate conflict on bilateral trade. But FDI has its own unique attributes and causal mechanisms. Furthermore, this analysis considers civil war and terrorism in addition to interstate war.

policy changes (e.g., expropriations), causing the expected returns of an investment project to decline.

As long as firms have no perfect foresight of all political violence-induced risks, their *ex ante* and *ex post* risk-adjusted returns will not be identical. The unanticipated developments provide firms with new information regarding possible future government intervention or market disruption, causing a downward revision of the expected stream of revenues. Hence, unanticipated incidents of political violence force investors to moderate their *ex ante* optimism, such that a country may no longer be chosen as an investment site or the amount of future investment be reduced.

Consider the following thought experiment. An actual event of political violence may be decomposed into a systematic component that investors capture by forecasting based on all available information and a stochastic component driven by the degree of uncertainty. The systematic component measures the accuracy of *ex ante* expectations while the stochastic component reflects the amount of new information *ex post*. Depending on the relative size between the systematic and the stochastic components, firms may be surprised more by some events of political violence and less so by others. More unanticipated events cause greater unexpected disruptions and higher expected future risks, generating larger *ex post* effects.

The theory suggests that the *ex ante* and *ex post* effects of political violence on investment flows are inversely related in size. A large anticipated effect is likely to be internalized into investment decision *ex ante*, such that the actual occurrence of violence brings no surprise, causing little *ex post* change in investment decision, whereas a small anticipated effect implies a large unanticipated surprise for investors, ending up being associated with a large *ex post* adjustment in investor behavior. This is relevant to how the effects of political violence on investment should be tested empirically. Using the actual violence occurrence in the statistical model, like it has been done in the literature, one only finds an average of large and small *ex post* effects. Such averaging,

depending on the sample and model specification, may produce inconsistent findings. Accurate empirical tests should distinguish between the unanticipated and anticipated effects. The anticipated events should be uncorrelated with investment behaviors subsequent to actual event occurrence, while the unanticipated events should produce statistically significant negative effects *ex post*.

### **Variations among Different Types of Political Violence**

The previous literature on the effect of political risk on FDI typically employs some composite index that lumps a variety of political activities together, ranging from demonstrations and strikes to armed conflicts and terrorist attacks. This practice ignores the disparate attributes of different types of political violence, a likely source of inconsistent findings.

Here I focus on three types of extreme political violence: civil war, interstate war, and transnational terrorist incidents. They usually involve salient issues with high stakes. Politicians often commit tremendous manpower and financial resources to deal with them. They also are less likely to give in or compromise on these issues. As a result, these types of political violence can cause economic recession in a host country, impose financial constraints on the government, and damage the country's infrastructure.

As for their differences, civil wars are fought between factions on the host territory. They often result from various social cleavages (class, ethnic, religious, and/or ideological), and lead to massive migration, destruction of infrastructure, repression, even massive killing and genocide (e.g., Fearon and Laitin 2003; Ghobarah, Huth and Russett 2003; Li and Wen 2005). Civil wars often are associated with regime changes and policy swings. All these have negative implications for foreign direct investors operating in the country.

Interstate wars, on the other hand, are fought between countries or their alliances. Enduring, large scale wars obviously have detrimental effects on the economic prospect of a host

country. But such wars tend to be rare. In addition, since many interstate wars involve territorial claims, they may be limited to the border areas and sometimes, may not even be fought on one's own territory. The current US war against Iraq, for example, is fought on the Iraqi territory, the effect of which may be large and negative on investment flows to Iraq but not necessarily so for investment flows to the US. Finally, while interstate wars are likely to disrupt investment flows between belligerent countries, the disrupted flows may be substituted by those from one's own allies. Therefore, while investors certainly want to evade a country involved in an interstate war that is being fought on its own territory, the overall effect of interstate war on investment may be an empirical issue and is likely to be smaller than that of the civil war.

Transnational terrorist incidents are different from both interstate and intra-state wars. Terrorism is often defined as the premeditated or threatened use of extra-normal violence or force to obtain a political, religious, or ideological objective through the intimidation of a large audience (e.g., Enders and Sandler 1999, 2002). These include a variety of activities, ranging from assassination, and hijacking, to suicide bombing. To the extent that these activities spread and threaten the host economic conditions and the security of the investor's asset, they should have a dampening effect on investment flows. But less significant and limited terrorist attacks may have little effect on the expected returns of an investment project.

## Research Design

### Modeling FDI Inflows

The typical dependent variable in the studies of the determinants of FDI inflows at the national level is the level of FDI net inflows into a country.<sup>4</sup> Conceptually the variable can be considered as consisting of two distinct but related components (e.g., Woodward and Rolfe 1993; Globerman and Shapiro 2003). One is the presence or absence of any FDI inflow in a country, which largely reflects the location choice by investors. The other is the amount of positive FDI inflow into a country. One can only observe a positive amount of FDI inflow when the country is chosen as an investment location by enough investors to counteract the divestment flow out of the country. Since events of political violence may affect the location choice and the investment amount differently, one may model the effects on the two variables separately by using the Heckman selection model (Heckman, 1979; Greene, 2003). The model can be specified as follows:

*Equation of FDI Inflow Presence:*

$$z_{i(t+1)}^* = \gamma_0 + \gamma_k \text{Violence}_{it} + \gamma_l \text{Control}_{it} + u_{1i(t+1)},$$

where  $z_{i(t+1)}^*$  is the probability of observing any positive FDI inflow into country  $i$  in year  $(t+1)$ ,  $\text{Violence}_{it}$  and  $\text{Control}_{it}$  represent vectors of political violence-related variables and the control variables,  $\gamma_k$  and  $\gamma_l$  are their corresponding vectors of coefficients.

*Equation of FDI Amount:*

$$\text{FDI Inflow}_{i(t+1)} = \beta_k \text{Violence}_{it} + \beta_m x_{it} + u_{2i(t+1)}, \text{ observed only if } z_{i(t+1)}^* > 0, \\ u_{1i(t+1)} \sim N(0, 1), u_{2i(t+1)} \sim N(0, \sigma), \text{corr}(u_{1i(t+1)}, u_{2i(t+1)}) = \rho.$$

---

<sup>4</sup> Data on the variable are from the *World Development Indicators*. The ratio of FDI/GDP also is often used in empirical studies. The conceptual problem with the ratio measure is that both FDI and GDP are on the left hand side, both affected by the same factors. Consequently, it is difficult to interpret whether the coefficient of a right-hand side variable reflects its effect on FDI or GDP. In addition, the level variable and the ratio variable have distinct conceptual implications.

where  $FDI\ Inflow_{i(t+1)}$  is the positive amount of FDI inflow into country  $i$  in year  $t+1$ ,  $x_{it}$  is the vector of economic control variables affecting the amount of FDI inflow. As Globerman and Shapiro (2003), the variable is log transformed to correct its skewed distribution. FDI inflow into country  $i$  in year  $t+1$  is present only when the selection variable  $z_{i(t+1)}^* > 0$ , and the inflow is zero or negative otherwise. A zero or negative value for the variable indicates either that no investor chooses to invest in that country in the year, or that the new investment plus reinvestment equals to or smaller than the divestment; either of the two scenarios demonstrates the lack of attractiveness of the country as an investment location. Both the probability of observing positive FDI inflow  $z_{i(t+1)}^*$  and the amount of FDI inflow are a function of various forms of political violence associated with the country. The dependent variables in both equations are one year leading variables to control for possible reverse causality.

As denoted, the model assumes that the error terms from both equations are normally distributed, with zero means and correlation  $\rho$ . Where  $\rho \neq 0$ , the two equations are not independent from each other. The selection model as a whole takes into account the cross-equation correlation and allows us to estimate the effects of political violence on the presence of FDI inflow and the amount, separately.

The empirical analysis covers about 129 countries from 1976 to 1996. The pooled time-series cross-sectional (TSCS) design and wide temporal and spatial variations in the level of FDI inflows enable a discriminating statistical assessment of the effect of political violence. I use the one-tailed t-test for hypothesis testing because my hypotheses are directional.

Statistical models for pooled time-series cross-sectional data may exhibit heteroskedasticity and serial correlation. While these problems do not bias the estimated coefficients, they often cause biased standard errors for the coefficients, producing invalid statistical inferences. To deal with

these potential problems, I estimate the Huber-White robust standard errors clustered over countries. These estimated standard errors are robust to both heteroskedasticity and to a general type of serial correlation within the cross-sectional unit (Rogers, 1993; Williams, 2000).

### **Key Independent Variables**

Several groups of political violence-related variables are designed to test the above hypotheses. First, I construct three variables that measure a country's involvement in the civil war, the interstate war, and the number of transnational terrorist incidents. They provide an initial test of the effect of political violence without distinguishing the anticipated and unanticipated effects of political violence. More specifically, civil war is a dummy variable coded one if a country is involved in a civil war in year  $t$  and zero otherwise. The definition and data on this variable is from Fearon and Laitin (2003). Interstate war also is a dummy coded one if a country is involved in an interstate conflict with more than 1,000 battle deaths in year  $t$  and zero otherwise. Data come from the Armed Conflict Database from 1946 to 2000 by Gleditsch et al. (2002).<sup>5</sup> Terrorist incidents are measured by the number of transnational terrorist events that occur in a country in year  $t$ . Data are collected from the International Terrorism: Attributes of Terrorist Events (ITERATE) data sets (Mickolus 1982; Mickolus et al 1989; Mickolus et al 1993; Mickolus et al 2002). Since these variables do not distinguish the ex ante and ex post effects of political violence, I do not have clear expectations of their effects on FDI inflows. If anything, one should expect the results to be mixed.

Simulating how investors use available information to predict future occurrences of political violence, I construct forecasting models of civil war involvement, interstate war involvement and transnational terrorist incidents in year  $t$ , based on available information on the predictors from year

---

<sup>5</sup> In the database, an armed conflict is defined as “a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths.”

(t-1). I use a civil war involvement model to identify anticipated and unanticipated civil wars. Fearon and Latin (2003) estimate the effect on civil war onset of a number of covariates, including GDP per capita, population size, size of mountainous terrain, oil producing country, new state, non-contiguous state, political instability, political regime type, ethnic fractionalization, and religious fractionalization. I use their model to generate the predicted probability of civil war involvement of a country in year t. Instead of civil war onset, I use civil war involvement of a country as the dependent variable and estimate a logit model. I also include the number of years a country had been involved in any civil war till the previous year to increase the accuracy of the model forecast. Anticipated civil war is a dummy variable coded 1 if the predicted probability of civil war involvement is greater than 0.5 and the country is involved in a civil war in year t, and zero otherwise. I capture the unanticipated civil war using a truncated continuous measure, which equals [actual civil war involvement dummy in year t \* (1- predicted probability of civil war involvement)]. The variable is superior to a dichotomous measure of unexpected civil war involvement because it contains information on the degree of surprise a civil war occurrence brings to investors.

I estimate a country level model of interstate war involvement to identify anticipated and unanticipated interstate war involvement by a country. The logit model of interstate war involvement includes the following covariates: the major power status of a country, GDP per capita, country size, the number of years a country were involved in interstate war, the change in urbanization (the annual growth rate of the urban population), status of interstate war involvement in the previous year, political regime type, and peace duration variables (Beck, Katz and Tucker 1998). Predicted probability of interstate war involvement is generated. Anticipated interstate war is coded 1 if a country is involved in an interstate war in year t and the predicted probability is greater than 0.3, and zero otherwise. Unanticipated interstate war is a continuous measure that equals [actual interstate war involvement dummy in year t \* (1- predicted probability of interstate war

involvement)]. It is worth noting that interstate wars are fought between countries. A forecasting model of interstate war involvement based on country attributes is apparently insufficient. The model has poor predictive power, where the predicted probability for actual war involvement cases ranges between 0.004 and 0.55, with 0.3 around the 90<sup>th</sup> percentile. But the country level analysis of FDI inflows in this paper prevents the use of a dyadic model of interstate war involvement that is typical in the international relations literature. Despite the weakness, the country level model of interstate war involvement still produces useful information about the continuation of interstate war involvement by including several past conflict history variables in the model. Future research may usefully extend the analysis to bilateral investment flows.

To measure anticipated and unanticipated terrorist incidents in a country, I estimate a negative binomial model of transnational terrorist incidents based on the data and model in Li and Schaub (2004). Li and Schaub (2004) estimate how economic globalization affects terrorist incidents using a negative binomial model and the ITERATE data on terrorist incidents. The dependent variable is an event count of the number of transnational terrorist incidents in countries. Their model includes GDP per capita, major trading partners' GDP per capita, trade openness, FDI inflows, portfolio investment, country size, government capability, number of incidents in the previous year, interstate conflict, regional dummies, Cold War dummy, and the level of democracy. Because trade openness, FDI inflows, and portfolio investment variables have a lot of missing values, I omit them from the model, but add additional transnational terrorist hot spot variables (Li and Braithwaite 2005) that help improve the accuracy of model forecast. The anticipated terrorist incidents variable is a truncated continuous measure, which equals the difference between the predicted event count and the actual count in year  $t$  if their difference is equal to or less than 3 (the estimation sample average number of incidents), and zero otherwise. The unanticipated incidents variable equals the difference between the predicted event count and the actual event count in year  $t$

if their difference is greater than 3 incidents, and zero otherwise. The unanticipated variable should capture those cases where events are most unanticipated.

What are the expected signs for these political violence-related variables? Based on my theoretical argument, the actual act of violence (civil war, interstate war, terrorism) that is anticipated to occur in year  $t$ , based on information available at the end of year  $(t-1)$ , does not affect the investment flows that occur in year  $(t+1)$ . Investors have adjusted their investment decisions before the occurrence of the anticipated violence. As a result, the realization of the anticipated event in year  $t$  has little effect on subsequent investment behaviors in year  $t+1$ . The coefficients for the anticipated violence variables are expected to be statistically insignificant for both the inflow presence equation and the inflow amount equation. Because the hypothesized effects are not directional, two-tailed tests are applied in hypothesis testing.

In contrast, where investors err on the side of optimism, they are taken by surprise by the occurrences of political violence. Actual civil wars, interstate wars, and terrorist attacks that are unanticipated to occur in year  $t$  may affect investors' expected returns and their ease to exit in the next period. Where the effect is strong enough to induce changes in investment behaviors, they are reflected in the decisions to invest elsewhere, to divest from a country, or reduce the amount of planned investment. Therefore, the coefficients for the unanticipated violence variables are expected to be statistically significant and negative for both the inflow presence equation and the inflow amount equations. As these hypothesized effects are directional, I apply one-tailed test for hypothesis testing.

### **Control Variables**

The set of control variables is different between the inflow presence equation and the inflow amount equation, which helps to identify the model based on different information sets, rather than

relying on the functional form (as in the case of using identical model specification for both equations). The control variables for the investment presence equation include the investment inflow in year  $t$  and the Cold War dummy. Since an investment inflow consists of new investment and reinvestment and firms tend to have a long time horizon, the investment inflow should exhibit inertia. In addition, the investment inflow in the current year should be the best predictor of investment decisions for the next period, because the investment inflow in the current year results from best information available to the investor. The Cold War dummy is coded one for a country in years before 1990 and zero otherwise. The Cold War politics has seriously inhibited capital flows between countries associated with the two superpowers respectively. The end of the Cold War brought about many new attractive investment destinations in Eastern Europe and Asia for Western investors.

The control variables for the inflow amount equation include the usual suspects in the empirical literature on FDI inflows, including the market size, economic development, growth rate, exchange rate stability, as well as inflows in year  $t$ . Large markets are more likely to attract FDI due to an expected stream of future returns while small market size attracts less FDI. Studies of FDI inflows (e.g., Chan and Mason 1992; Jun and Singh 1996) typically control for market size. I use logged GDP in PPP to measure market size. Data for all these control variables are from the World Bank's *World Development Indicators*.

Economic development should affect FDI inflows positively. More developed countries often attract more FDI than less developed ones, due to differences in consumer purchasing power, capital endowment and infrastructure. The variable is measured as GDP per capita based on purchasing power parity (PPP), logged to deal with its skewed distribution.

Economic growth is often found to induce more FDI inflows to a country (e.g., Gastanaga et al. 1998; Jun and Singh 1996; Schneider and Frey 1985). Profit-maximizing foreign investors are

attracted to fast-growing economies to take advantage of future market opportunities. It is the annual percentage growth rate of GDP at market prices based on constant local currency.

Exchange rate risk may also affect FDI inflows. Large movements in the exchange rate inhibit long term planning and disrupt local markets. To measure such risk, I use the absolute value of the percentage change of the official exchange rate of local currency units per US dollar.

### **Findings and Implications**

Table 1 presents the results for the effects of civil war, interstate war, and terrorist incidents, without separating the ex ante and ex post effects. The top panel of the table contains results for the inflow presence equation, while the bottom panel the results for the inflow amount equation. Each panel has four model specifications. Model 1 is the benchmark model, Model 2 includes only civil war among the violence-related variables, Model 3 only interstate war, Model 4 only terrorist incidents. Model 5 evaluates whether the results in Model 1 are sensitive to alternative specification, by including identical sets of variables in the two equations.

Table 2 presents the results for anticipated and unanticipated political violence variables. Like Table 1, Table 2 also contains two panels, corresponding to the inflow presence equation and the inflow amount equation. Model 1 is the benchmark model, Model 2 contains only the unanticipated political violence-related variables and excludes the anticipated variables, Model 3 reverses Model 2 specification, and Model 4, like Model 5 in Table 1, evaluates whether allowing the same specification for the two equations affects the robustness of the results in Model 1.

### **[Tables 1 and 2 about here]**

Across all models of both tables, the hypothesis that the cross-equation correlation equals zero is rejected at the 1% level. The cross-equation correlation is about -0.9, far different from zero correlation. The use of the Heckman selection model is appropriate. The negative correlation

indicates the presence of unobservable characteristics that increase the probability of a country receiving FDI but reduce the amount of FDI it receives. Across all models in both tables, the Cold War dummy is consistently significant and negative for the inflow presence equation. On average, a country is less likely to be chosen as an investment location during the Cold War years than after the end of it. The FDI inflow in year  $t$  is a statistically significant and positive predictor of the presence of FDI inflow across all models in both tables. In Model 5 of Table 1 and Model 4 of Table 2, where the inflow presence equation is specified the same as the inflow amount equation, the previous inflows variable remains significant and positive, but the other control variables (market size, development, growth) that are typically found to be important determinants of FDI flows in the literature fail to achieve statistical significance, except for exchange rate instability. These two models do not appear to be superior to the benchmark model in both tables, which gives us more confidence in the benchmark model results.

The control variables for the FDI amount equation produce results that are quite consistent with the conventional wisdom in the literature. Even when we include the rather restrictive control variable, the previous inflows, the effects of the other control variables are highly significant and in the expected directions. Large market size, higher development, and faster economic growth all increase the amount of FDI inflows into a host country, while exchange rate instability reduces the amount of inflows. The results for these control variables are consistent across all models in both tables, giving us more confidence in the model results.

Next we turn to discuss the results for the political violence-related variables. We start with the results in Table 1. The statistical findings are quite mixed, which is not surprising given that each of these variables lumps the anticipated and unanticipated effects together. More specifically, civil war involvement does not influence the investment location choice across all five models, but it has a weakly significant negative effect on the investment amount in the host country in Model 1

only. In contrast, interstate war involvement is highly significant and negative in the inflow presence equation. A country that is involved in an interstate war is less likely to be chosen as an investment destination. But interstate war involvement does not reduce the amount of investment the country receives once it is chosen favorably. The number of transnational terrorist incidents in a country does not affect its chances of being chosen as an investment destination or the amount it receives once being chosen. The only exception is in Model 1, where the number of terrorist incidents appears to weakly increase the amount of FDI investment a country receives. The mixed nature of these results reflects the situation of the collective evidence in the literature to date.

Are the results for the political violence-related variables in Table 2 consistent with our theoretical expectations? Do they exhibit any coherent pattern that has been absent in the literature on the effect of political risk over FDI flows? Starting with the effects of civil war variables, we find that as expected, the effect of unanticipated civil war involvement is statistically significant and negative across all relevant models in both equations; the effect of anticipated civil war involvement is statistically insignificant across all relevant models in both equations, also as expected. A country that experiences a civil war that investors fail to anticipate will find itself being shunned by investors both in terms of its chances of being chosen as an investment location and the amount of FDI it receives. The coefficient estimate for the variable demonstrates that as the probability that a country experiences an unanticipated civil war rises from 0 to 1, the decline in its FDI inflow ranges from 70% (Model 1) to 74% (Model 4). This is an economically substantial change. However, the occurrence of a civil war that has been anticipated by investors will no longer influence subsequent investment behaviors, which is consistent with the notion that the repressive effect has kicked in before the anticipated civil war occurs.

The results for the interstate war variables also are largely consistent with our expectations. As expected, the anticipated interstate war does not affect the chance that a country is selected as an

investment destination across all models, except in Model 3. This is not surprising, because Model 3 excludes the unanticipated interstate war variable. The anticipated interstate war, being constructed based on a model of poor predicted power and low probability cut off, is likely to contain cases that are unanticipated. Finally, as expected, the anticipated interstate war does not have any effect on the amount of FDI inflows a country receives across all models for the inflow amount equation.

Interestingly, the unanticipated interstate war reduces the chance that a country is being chosen as an investment location, based on all models of the inflow presence equation, but it has no statistically significant effect on the amount of FDI a country receives across all models of the inflow amount equation. The findings are not inconsistent with our understanding of the nature of interstate wars. The results suggest that interstate war largely deters new equity investment that flows into a country. The deterred new investment may have originated from the belligerent country, or from those investors that were contemplating to enter the market but are now put on hold, given the increased uncertainty about the future direction of the host country. However, pre-existing investment in the host country does not necessarily shrink or withdraw and may even expand through increased reinvestment. This will occur so long as the war is limited to the border area or fought on the soil of another country, without generating any real drastic policy changes of wide impact. In addition, the war effort itself may generate some perverse incentive for pre-existing MNEs to expand their operations, due to the increased war-related demand for the products of the MNEs, especially those in the agriculture, extractive, chemical, and manufacturing industries. Finally, as noted, the market demand which the deterred new investment was intended to serve may now be satisfied by existing MNEs in the country through expanding their operations.

As expected, the anticipated transnational terrorist incidents do not produce any statistically significant effect on the chance that a country is chosen as an investment location or the amount of FDI it receives. The statistical finding with respect to the unanticipated terrorist incidents is not as

expected. Contrary to our expectation, the unanticipated terrorist incidents, despite their unexpectedness, do not generate any changes in investor behaviors, either in terms of the investment location choice or the decision over investment amount. One interpretation that is consistent with the findings is that investors do not care about or can not deal with terrorist incidents-related risks at all. This interpretation, however, is not plausible in light of the catastrophic consequences of events like the 9/11. Another possibility is that the measure of terrorist incidents that are used to generate these anticipated and unanticipated measures is too crude by aggregating all types of incidents together. It fails to separate terrorist attacks that have real implications for business operations from those that are merely news of little informational value (e.g., hoax). Future research may further explore the issue by creating a measure of terrorist attacks similar in severity to those measures of interstate and intra-state wars. A third possibility is due to the particularistic attributes of FDI, relative to the flow of goods, for example. In Chapter 10 of this volume, Fratianni and Kang show that terrorism reduces real bilateral trade flows by raising trading costs and hardening borders. While traders are sensitive to and constantly internalize the changes in trading costs due to terrorist incidents, foreign direct investment tends to be much more rigid and stationary in the host economy. As noted, foreign direct investors who operate production facilities in the host economy tend to have long time horizons and global business strategies. They are unlikely to respond to every kind of terrorist threat, because not every type of terrorist incidents has material influence over the firm operation and profit. A fourth possibility that may account for the insignificant effect of unanticipated terrorist attacks relates to the nature of the FDI data we use. In analyzing the effect of terrorism on trade, for example, Fratianni and Kang examine bilateral trade data and they find that countries sharing a common land border and suffering from terrorism trade less than neighboring countries that do not experience terrorism. But the impact of terrorism on bilateral trade declines as distance between trading partners increases. The FDI flows are also

directional. The effect identified by Fratianni and Kang in terms of trade may also apply to FDI flows. Hence, the use of monadic FDI data makes it difficult for us to identify accurately the effect of political violence, including not just terrorism but also interstate and civil war.

### **Conclusion**

The international business literature presents an interesting intellectual puzzle regarding the effect of political instability and political risk on foreign direct investment (FDI). Survey evidence shows that multinational executives take into account political instability in making investment decisions, while econometric studies produce conflicting findings. In this paper, I offer a new theory that explains how political violence, an extreme form of political instability, affects foreign direct investment.

The new theory contributes to the literature by bringing in rational expectations and uncertainty on the part of foreign investors to shed light on the effect of political violence on investment behaviors. The amount of FDI is analyzed separately from the probability of a country receiving FDI. The empirical analysis of FDI inflows covers about 129 countries from 1976 to 1996. Unanticipated civil war has a negative *ex post* effect on investment choices over location and magnitude, but anticipated civil war does not. Unanticipated interstate war decreases the chance a country is chosen as an investment location, but not the size of investment. Anticipated interstate war does not influence *ex post* investor choices over either location or magnitude. Likewise, anticipated terrorist attacks do not have such *ex post* effects. But unanticipated terrorist attacks are not found to have any effect on investment choices either, an issue worth further exploration. Overall, the statistical findings largely support my theoretical expectations. The theory helps reconcile the inconsistent econometric findings on the effect of political instability on FDI flows.

However, future research should further investigate the unexpected finding that unanticipated terrorist attacks do not influence investment behaviors. Disaggregating the types of

terrorist attacks is a meaningful next step. Where data are available, one should also look into bilateral investment flows, rather than relying on country level investment data. This may also account for why interstate conflict does not influence country level FDI inflows.

Despite these issues, this article suggests a new perspective that proves useful in reconciling contradictory findings in the international business literature. Analysts are urged to consider issues of rational expectation, uncertainty, as well as attributes of political events, in order to understand how politics influences investment behaviors. Political violence affects investment in a complex manner. More sophisticated understanding leads to better appreciation of the negative consequences of political violence, providing a greater incentive to search for policy solutions that reduce violent acts.

## References

- Aharoni, Yair. 1966. *The Foreign investment decision process*. Boston, MA: Harvard University.
- Bass, Bernard, Donald McGregor, and Games Walters. 1977. "Selecting Foreign Plant Sites: Economic, Social and Political Considerations." *Academy of Management Journal*:535-51.
- Beck N., Katz, J.N., and R. Tucker. 1998. "Taking Time Seriously in Binary Time-Series-Cross-Section Analysis." *American Journal of Political Science* 42:1260-88.
- Buckley, Peter J., and Mark Casson. 1976. *The Future of the Multinational Enterprise*. London: Macmillan.
- Butler, Kirt C., and Domingo C. Joaquin. 1998. "A Note on Political Risk and the Required Return on Foreign Direct Investment." *Journal of International Business Studies* 29:599 - 607.
- Chan, Steve, and Melanie Mason. 1992. "Foreign Direct Investment and Host Country Conditions: Looking from the Other Side Now." *International Interactions* 17:215-32.
- Dunning, John. 1988. *Explaining International Production*. London: Unwin Hyman.
- Dunning, John. 1993. *Multinational Enterprises and the Global Economy*. New York: Addison-Wesley.
- Enders, Walter, and Todd Sandler. 1999. "Transnational Terrorism in the Post-Cold War Era." *International Studies Quarterly* 43:145-67.
- Enders, Walter, and Todd Sandler. 2002. "Patterns of Transnational Terrorism 1970-99: Alternative Time Series Estimates." *International Studies Quarterly* 46:145-65.
- Fatchi-Sedeh, Kamal, and Hossein M. Safizadeh. 1989. "The Association between Political Instability and Flow of Foreign Direct Investment." *Management International Review* 29:4-13.
- Fearon, James D. 1995. "Rationalist Explanations for War." *International Organization* 49:379-414.
- Fearon, James, and David D. Laitin. 2003. "Ethnicity, Insurgency, and Civil War." *American Political Science Review* 97:75-90.
- Finnerty, John D. 2001. "Securitizing Political Risk Insurance: Lessons From Past Securitization." In *International Political Risk Management*, ed. Theodore Moran. Washington: World Bank Group.
- Fратиanni, Michele and Heejoon Kang. 2005. "International Terrorism, International Trade and Borders."
- Gartzke, Erik, Quan Li, and Charles Boehmer. 2001. "Investing in the Peace: Economic Interdependence and International Conflict." *International Organization* 55:391-438.
- Gartzke, Erik, and Quan Li. 2003. "The Shadow of the Invisible Hand: War, Peace, and Economic Globalization." *International Studies Quarterly* 47:561-586.

- Gastanaga, Victor M., Jeffrey B. Nugent, and Bistra Pashamova. 1998. "Host Country Reforms and FDI Inflows: How Much Difference Do They Make?" *World Development* 26:1299-314.
- Ghobarah, Hazem A., Paul Huth, and Bruce Russett. 2003. "Civil Wars Kill and Maim People - Long after the Shooting Stops." *American Political Science Review* 97:189-202.
- Gleditsch, Nils P., Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and Håvard Strand. 2002. "Armed Conflict 1946-2001: A New Dataset." *Journal of Peace Research* 39:615-37.
- Globerman, Steven and Daniel Shapiro. 2003. "Governance Infrastructure and US Foreign Direct Investment." *Journal of International Business Studies*. 34(1):19-40.
- Greene, William. 2003. *Econometric Analysis*. 5th ed. Upper Saddle River, N.J.: Prentice Hall.
- Heckman, James J. 1979. "Sample Selection Bias as a Specification Error." *Econometrica* 47:153-62.
- Hymer, Stephen. 1976. *The International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge, MA.: MIT Press.
- Jun, Kwang W., and Harinder Singh. 1996. "The Determinants of Foreign Direct Investment in Developing Countries." *Transnational Corporations* 5:67-105.
- Kobrin, Stephen J. 1979. "Political Risk: A Review and Reconsideration." *Journal of International Business Studies* 10:67-80.
- Li, Quan, and David Sacko. 2002. "The (IR)Relevance of Interstate Militarized Disputes to International Trade." *International Studies Quarterly* 46:11-44.
- Li, Quan, and Adam Resnick. 2003. "Reversal of Fortunes: Democracy, Property Rights and Foreign Direct Investment Inflows in Developing Countries." *International Organization* 57:1-37.
- Li, Quan, and Drew Schaub. 2004. "Economic Globalization and Transnational Terrorist Incidents: A Pooled Time Series Analysis." *Journal of Conflict Resolution* 48:230-58.
- Li, Quan, and Alex Braithwaite. 2005. "Terrorism Hot Spots and Transnational Terrorist Incidents." Mimeo.
- Li, Quan, and Ming Wen. 2005. "Immediate and Lingering Effects of Armed Conflict on Adult Mortality: A Time Series Cross-National Analysis." *Journal of Peace Research* 42(4):471-492.
- Loree, David W., and Stephen Guisinger. 1995. "Policy and Non-Policy Determinants of U.S. Equity Foreign Direct Investment." *Journal of Business Studies* 26:281-99.
- Mickolus, Edward F. 1982. *International terrorism: Attributes of terrorist events, 1968-1977 (ITERATE 2)*. Ann Arbor, MI: Inter-University Consortium for Political and Social Research.

- Mickolus, Edward F., Todd Sandler, Jean M. Murdock, and Peter Fleming. 1989. *International terrorism: Attributes of terrorist events, 1978-1987 (ITERATE 3)*. Dunn Loring, VA: Vinyard Software.
- Mickolus, Edward F., Edward F., Todd Sandler, Jean M. Murdock, and Peter Fleming. 1993. *International terrorism: Attributes of terrorist events, 1988 – 1991 (ITERATE 4)*. Dunn Loring, VA: Vinyard Software.
- Mickolus, Edward F., Edward F., Todd Sandler, Jean M. Murdock, and Peter Fleming. 2002. *International terrorism: Attributes of terrorist events, 1991 – 2000 (ITERATE 5)*. Dunn Loring, VA: Vinyard Software.
- Nigh, Douglas. 1985. The Effect of Political Events on United States Direct Foreign Investment: A Pooled Time-Series Cross-Sectional Analysis. *Journal of International Business Studies*, 16(1): 1-17.
- Olibe, Kingsley O., and C. Larry Crumbley. 1997. “Determinants of U.S. Private Foreign Direct Investments in OPEC Nations: From Public and Non-Public Policy Perspectives.” *Journal of Public Budgeting, Accounting and Financial Management*:331-55.
- Pearce, Robert D, Karl P Sauvart, and Azizul Islam. 1992. *The Determinants of Foreign Direct Investment: A Survey of the Evidence*. United Nations Centre on Transnational Corporations, New York: United Nations.
- Porcano, Thomas. M. 1993. “Factors Affecting the Foreign Direct Investment Decision of Firms From and Into Major Industrialized Countries.” *Multinational Business Review* 1:26-36.
- Rivoli, Pietra, and Eugene Salorio. 1996. “Foreign Direct Investment and Investment Under Uncertainty.” *Journal of International Business Studies* 27:335 - 57.
- Rogers, William H. 1993. “Regression Standard Errors in Clustered Samples.” *Stata Technical Bulletin* 13:19-23.
- Rothgeb, John. 1990. “Investment Dependence and Political Conflict in Third World Countries.” *Journal of Peace Research* 27:255-72.
- Rugman, Alan M. 1981. *Inside the Multinationals: The Economics of Internal Markets*. New York: Columbia University Press.
- Schneider, Friedrich, and Bruno S. Frey. 1985. “Economic and Political Determinants of Foreign Direct Investment.” *World Development* 13:161-75.
- Sethi, Deepack, S.E. Guisinger, S.E. Phelan, and D.M. Berg. 2003. “Trends in foreign direct investment flows: a theoretical and empirical analysis.” *Journal of International Business Studies* 34:315-26.
- Vernon, Raymond. 1971. *Sovereignty at Bay*. New York: Basic Books.

Williams, Rick L. 2000. "A Note on Robust Variance Estimation for Cluster-correlated Data."  
*Biometrics* 56:645-46.

Woodward, Douglas, and Robert Rolfe. 1993. "The Location of Export-Oriented Foreign Direct  
Investment in the Caribbean Basin." *Journal of International Business Studies* 24:121-144

World Bank. 1999. *The 1999 World Development Indicators CD-ROM*. Washington: World Bank.

**Table 1 Effect of Political Violence on FDI Inflows, 1976-1996**

<b>Inflow Presence Equation</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
Civil War	-0.1659 (0.1200)	-0.1499 (0.1178)			-0.1010 (0.1463)
Interstate War	-0.4154** (0.1611)		-0.4081* (0.1720)		-0.4683* (0.2325)
Terrorist Incidents	0.0063 (0.0040)			0.0040 (0.0039)	0.0085 (0.0085)
Previous Inflows	0.9147** (0.2461)	0.9379** (0.2510)	0.5819** (0.2102)	0.6129** (0.2168)	0.7183** (0.2124)
Cold War Dummy	-0.3520** (0.0811)	-0.3388** (0.0776)	-0.3452** (0.0746)	-0.3869** (0.0723)	
Market Size					0.0065 (0.0507)
Development					-0.0402 (0.0752)
Growth					0.0063 (0.0058)
Exchange Rate Instability					-0.00001** (0.000003)
Constant	0.6002** (0.0780)	0.5796** (0.0762)	0.5957** (0.0736)	0.5452** (0.0693)	0.8478 (0.9114)
$\rho$	-0.91	-0.91	-0.92	-0.92	-0.92
Wald ( $\rho=0$ )	110.01	115.96	148.53	169.37	106
Total N	2682	2705	2918	3144	2289
<b>Inflow Amount Equation</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>	<b>Model 5</b>
Civil War	-0.1647 <sup>+</sup> (0.2206)	-0.1616 (0.2201)			-0.2100 (0.2214)
Interstate War	0.1317 (0.2081)		0.0738 (0.2343)		0.1355 (0.2129)
Terrorist Incidents	0.0003 <sup>+</sup> (0.0061)			-0.0035 (0.0051)	-0.0007 (0.0066)
Previous Inflows	0.0612* (0.0258)	0.0604* (0.0256)	0.0579* (0.0255)	0.0600* (0.0254)	0.0636* (0.0291)
Market Size	0.5524** (0.0709)	0.5569** (0.0678)	0.6059** (0.0571)	0.5775** (0.0464)	0.5797** (0.0796)
Development	0.6291** (0.1189)	0.6249** (0.1169)	0.5653** (0.1045)	0.5807** (0.0996)	0.6899** (0.1247)
Growth	0.0317** (0.0085)	0.0315** (0.0084)	0.0323** (0.0084)	0.0314** (0.0081)	0.0222* (0.0096)
Exchange Rate Instability	-0.0001** (0.00002)	-0.0001** (0.00002)	-0.0001** (0.00002)	-0.0001** (0.00002)	-0.0001** (0.00002)
Constant	-20.0624** (1.2738)	-20.1179** (1.2144)	-20.8356** (1.1404)	-20.2065** (0.9734)	-21.3807** (1.4090)

N	1912	1923	2051	2126	1912
Model Wald Test	442.74	417.69	460.48	585.31	489

Robust standard errors in parentheses

\* significant at 5%; \*\* significant at 1%; + significant at 10%

**Table 2 Anticipated and Unanticipated Effects of Political Violence on FDI Inflows, 1976-1996**

<b>Inflow Presence Equation</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Unanticipated Civil War	-0.3765 <sup>+</sup>	-0.3794 <sup>+</sup>		-0.3604 <sup>+</sup>
	(0.2374)	(0.2334)		(0.2530)
Anticipated Civil War	0.0855		0.0567	0.0196
	(0.1961)		(0.1894)	(0.2062)
Unanticipated Interstate War	-0.5589**	-0.6119**		-0.5391*
	(0.2395)	(0.2569)		(0.2452)
Anticipated Interstate War	-0.2716		-0.9129**	-0.4107
	(0.2910)		(0.3013)	(0.2853)
Unanticipated Terrorist Incidents	0.0160	0.0196		0.0146
	(0.0147)	(0.0168)		(0.0174)
Anticipated Terrorist Incidents	0.0134		0.0193	0.0268
	(0.0332)		(0.0313)	(0.0333)
Previous Inflows	0.7075**	0.7122**	0.7422**	0.6910**
	(0.2020)	(0.2047)	(0.2045)	(0.2108)
Cold War Dummy	-0.1814*	-0.1939*	-0.1547 <sup>+</sup>	
	(0.0919)	(0.0928)	(0.0906)	
Market Size				0.0234
				(0.0488)
Development				-0.0525
				(0.0778)
Growth				0.0057
				(0.0064)
Exchange Rate Instability				-9.02e-06**
				(3.76e-06)
Constant	0.7971**	0.8057**	0.7489**	0.5776
	(0.0901)	(0.0928)	(0.0852)	(0.8829)
$\rho$	-0.91	-0.91	-0.91	-0.92
Wald ( $\rho=0$ )	107.70	108.99	115.31	86.05
Total N	2183	2183	2183	2143
<b>Inflow Amount Equation</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
Unanticipated Civil War	-0.7078*	-0.7131*		-0.7285*
	(0.3235)	(0.3249)		(0.3214)
Anticipated Civil War	-0.0002		-0.0125	0.0705
	(0.2714)		(0.2754)	(0.2713)
Unanticipated Interstate War	0.0804	0.0578		0.1171
	(0.2521)	(0.2582)		(0.2526)
Anticipated Interstate War	-0.7628		-0.8863	-0.7914
	(0.7510)		(0.5910)	(0.7176)
Unanticipated Terrorist Incidents	0.0005	0.0011		0.0004
	(0.0064)	(0.0062)		(0.0062)
Anticipated Terrorist Incidents	0.0041		-0.0004	0.0003

	(0.0306)		(0.0309)	(0.0290)
Previous Inflows	0.0614*	0.0619*	0.0612*	0.0608*
	(0.0277)	(0.0277)	(0.0272)	(0.0280)
Market Size	0.5860**	0.5825**	0.5704**	0.5749**
	(0.0763)	(0.0706)	(0.0761)	(0.0812)
Development	0.6742**	0.6718**	0.7141**	0.7192**
	(0.1315)	(0.1237)	(0.1293)	(0.1321)
Growth	0.0283**	0.0285**	0.0318**	0.0211*
	(0.0093)	(0.0093)	(0.0093)	(0.0104)
Exchange Rate Instability	-0.0001**	-0.0001**	-0.0001**	-0.0001**
	(0.00002)	(0.00002)	(0.00002)	(0.00002)
Constant	-21.3973**	-21.2980**	-21.3866**	-21.4993**
	(1.3499)	(1.3112)	(1.3244)	(1.4353)
N	1790	1790	1790	1790

Robust standard errors in parentheses

\* significant at 5%; \*\* significant at 1%; + significant at 10%